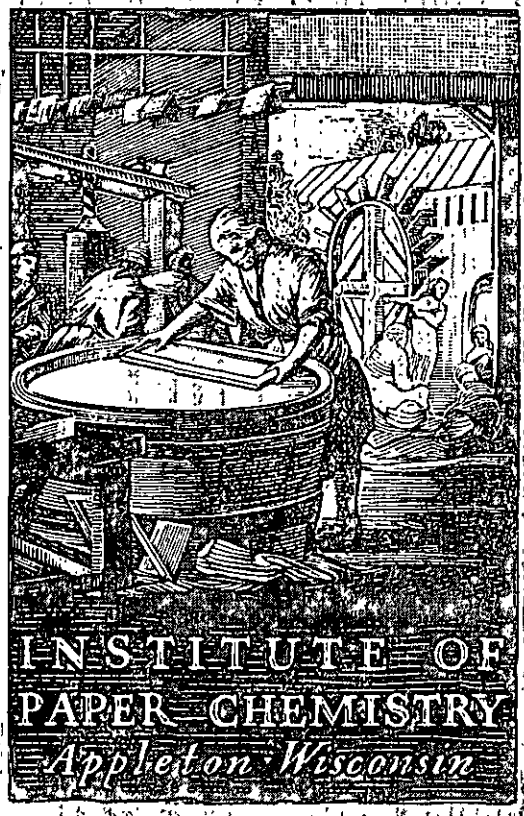

CONTINUOUS BASELINE STUDY

Project 1108-13

Progress Report 136

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

November 1, 1958

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

CONTINUOUS BASELINE STUDY

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November 1, 1958

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THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

PART I: PRESENTATION AND DISCUSSION OF RESULTS OBTAINED AT THE INSTITUTE OF PAPER CHEMISTRY

In conjunction with the F.K.I. Continuous Baseline Study, The Institute of Paper Chemistry has been directed to identify the participating mills by means of a scrambled system of code letters. Under this system, which was initiated in Progress Report 105, each mill is identified by a code letter different from that used for the previous month.

During the month of October, ninety-four different sample lots of 42-lb. Fourdrinier kraft linerboard from seventeen different F.K.I. mills were processed at The Institute of Paper Chemistry. A tabulation of the number of samples classified according to mill may be seen in Table I.

These sample lots were tested for basis weight, caliper, bursting strength, and Elmendorf tear. The average strength results for each mill may be seen in Table II and are graphically presented in Figures 1 to 5. In addition to a comparison of the mill averages for the various tests, Table II also shows the current F.K.I. averages, the cumulative F.K.I. averages, and the F.K.I. indexes. The cumulative F.K.I. average is based on the results for the previous twelve months excluding the current period. Hence, in the case of the current report, it covers the period from October 1, 1957 to September 30, 1958. The F.K.I. indexes are obtained as follows:

$$\frac{\text{current F.K.I. average}}{\text{cumulative F.K.I. average}} \times 100 = \text{F.K.I. index (\%)}$$

TABLE I

NUMBER OF SAMPLE LOTS SUBMITTED BY EACH MILL

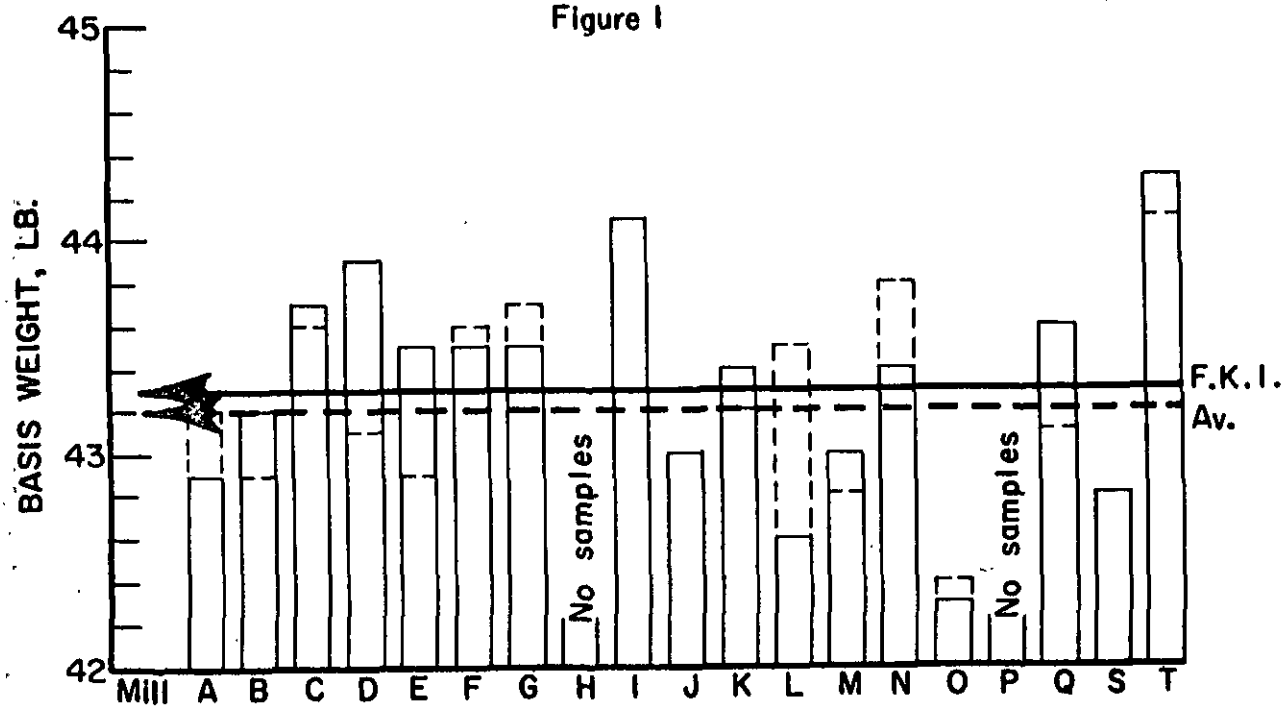
Mill Code	Number
A	4
B	11
C	2
D	8
E	12
F	10
G	6
H	0
I	2
J	5
K	4
L	1
M	2
N	4
O	3
P	0
Q	4
S	4
T	12
Total	94

TABLE II

SUMMARY OF COMPOSITE MILL AVERAGES--OCTOBER 1 THROUGH OCTOBER 31, 1958

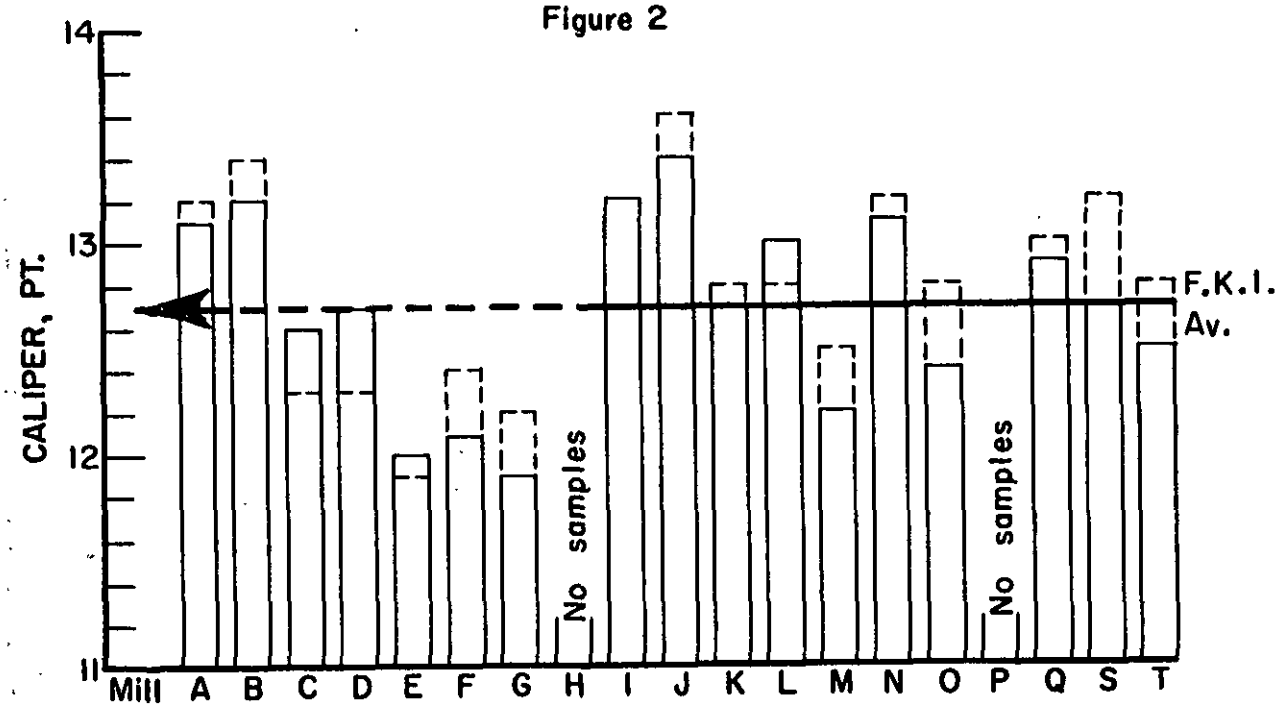
Mill	Basis Weight, lb.	Caliper, points	Bursting Strength, p.s.i. gage	Elmendorf Tear, g./sheet	
				In Machine	Cross Machine
A	42.9	13.1	112	318	370
B	43.2	13.2	116	289	353
C	43.7	12.6	115	358	367
D	43.9	12.7	112	313	363
E	43.5	12.0	115	358	410
F	43.5	12.1	114	325	379
G	43.5	11.9	114	354	381
H	No samples submitted				
I	44.1	13.2	109	281	354
J	43.0	13.4	111	324	351
K	43.4	12.7	111	325	384
L	42.6	13.0	110	335	391
M	43.0	12.2	108	293	383
N	43.4	13.1	107	332	374
O	42.3	12.4	114	343	392
P	No samples submitted				
Q	43.6	12.9	105	305	360
S	42.8	12.7	109	358	370
T	44.3	12.5	111	333	373
Current FKI Average:	43.3	12.7	111	326	374
Cumulative FKI Average:	43.2	12.7	112	332	375
FKI Index, %	100.2	100.0	99.1	98.2	99.7

Figure 1



COMPARISON OF BASIS WEIGHT RESULTS
(Period Oct. 1 - Oct. 31, 1958)

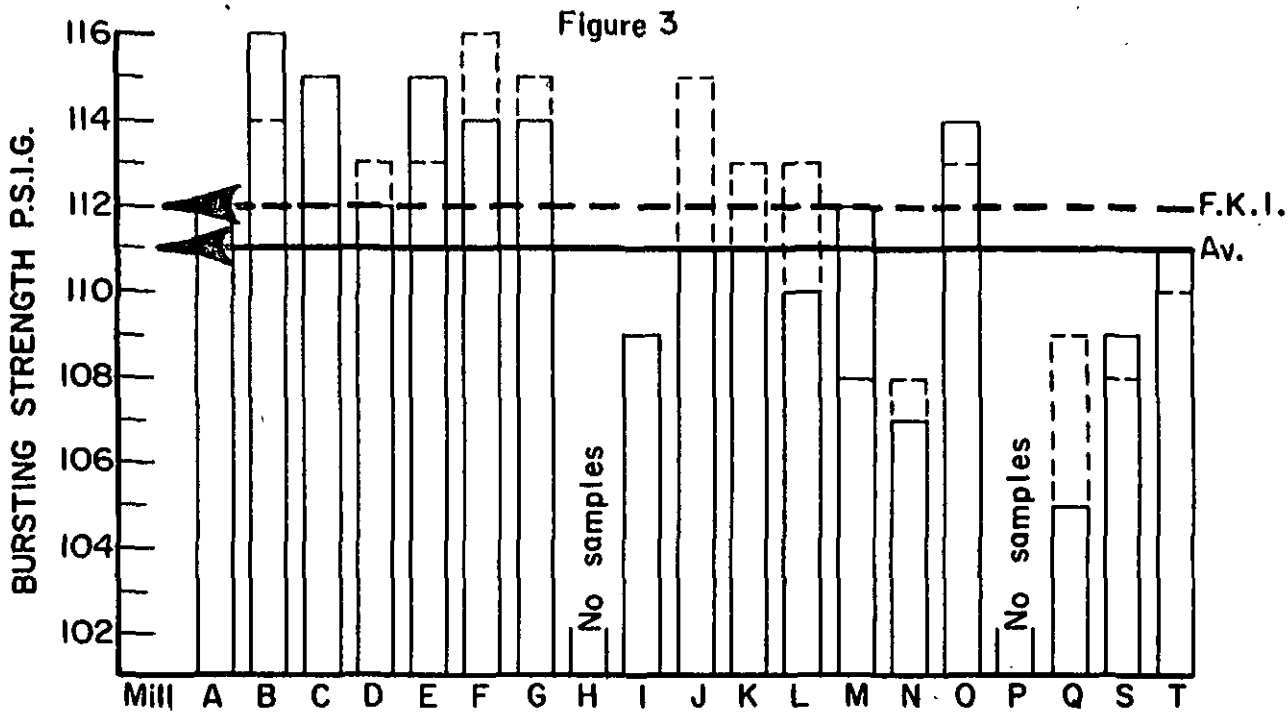
Figure 2



COMPARISON OF CALIPER RESULTS
(Period Oct. 1 - Oct. 31, 1958)

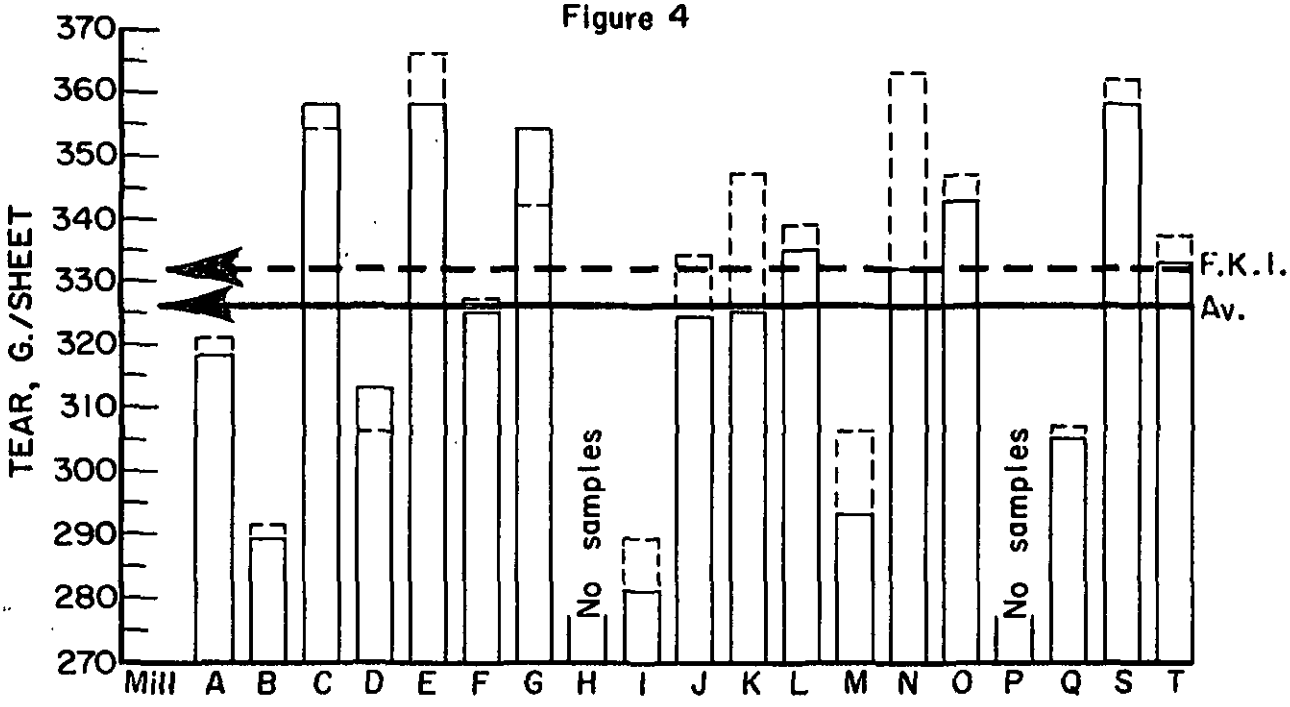
——— Current mill average
- - - - - Cumulative mill average

Figure 3



COMPARISON OF BURSTING STRENGTH RESULTS
(Period Oct. 1 - Oct. 31, 1958)

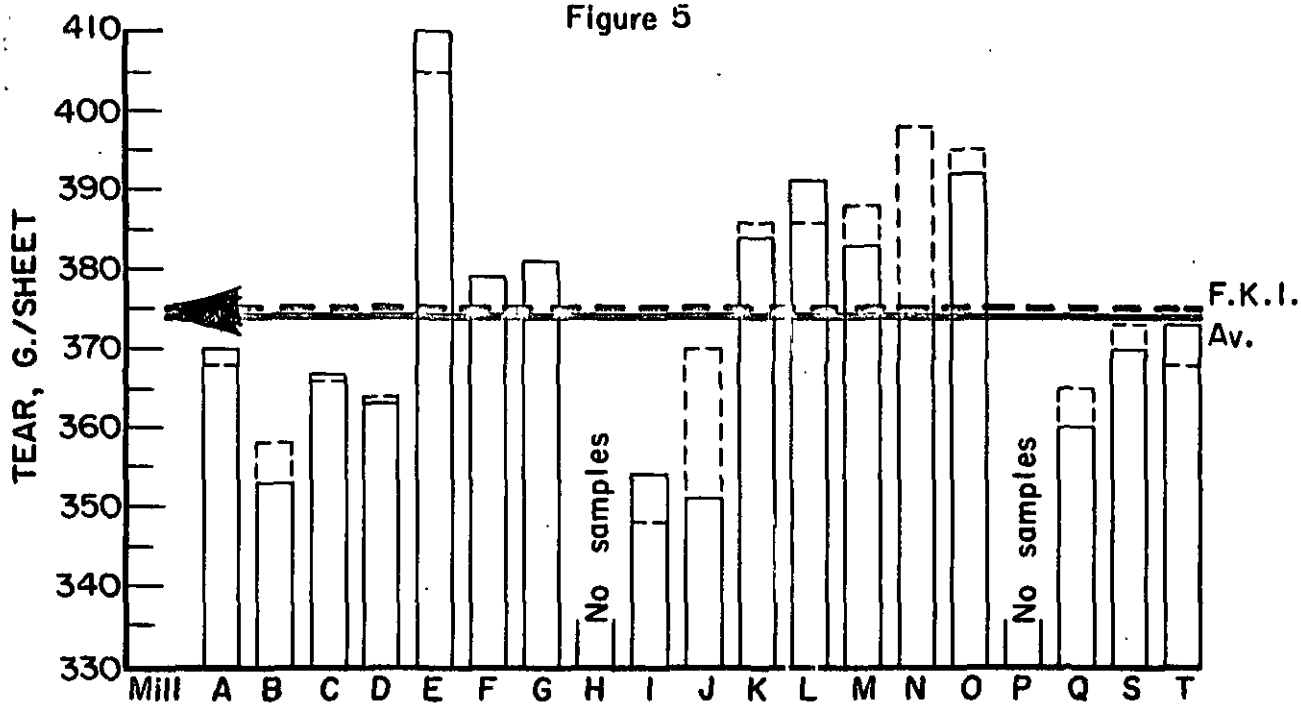
Figure 4



COMPARISON OF TEAR RESULTS, Machine Direction
(Period Oct. 1 - Oct. 31, 1958)

——— Current mill average
- - - - - Cumulative mill average

Figure 5



COMPARISON OF TEAR RESULTS, Cross-Machine Direction
(Period Oct. 1 - Oct. 31, 1958)

——— Current mill average
- - - - - Cumulative mill average

The F.K.I. index provides a ready means of comparing the current quality with previous results. For example, the current F.K.I. average basis weight is 43.3 lb., and the cumulative F.K.I. average basis weight is 43.2 lb. Hence, the F.K.I. index for basis weight determined in per cent as indicated above is 100.2% and signifies that the current F.K.I. average basis weight is slightly higher than the cumulative F.K.I. average.

A comparison of the results in Table II and Figure 1 shows that the average basis weight results for all mills conform to the 42-lb. specification set forth in Rule 41. Mill T had the highest average basis weight of 44.3 lb. which was approximately 5.5% higher than the 42-lb. specification. The lowest average basis weight of 42.3 lb., which was approximately 0.7% higher than the 42-lb. specification, was associated with Mill O.

The amount by which the mills vary from the 42-lb. specification is shown in Table II-A.

A comparison of the current F.K.I. basis weight average for this period with that for the previous period shows that basis weight has remained at the same level for these periods.

A comparison of the average caliper values for the various mills (see Figure 2) shows that the current mill averages varied from a low of 11.9 points for Mill G to a high of 13.4 points for Mill J. The current F.K.I. caliper average is 12.7 points, which is the same as the cumulative F.K.I. average.

TABLE II-A

PERCENTAGE DEVIATIONS FROM 42-LB. BASIS WEIGHT

SPECIFICATION

Mill Code	Per Cent
A	+2.1
B	+2.9
C	+4.0
D	+4.5
E	+3.6
F	+3.6
G	+3.6
H	--
I	+5.0
J	+2.4
K	+3.3
L	+1.4
M	+2.4
N	+3.3
O	+0.7
P	--
Q	+3.8
S	+1.9
T	+5.5

The average bursting strength values obtained for each mill are graphically presented in Figure 3. It may be observed in Table II and Figure 3 that the current mill averages for bursting strength ranged from a low of 105 for Mill Q to a high of 116 for Mill B. The current F.K.I. bursting strength average is 111 p.s.i. gage, which is slightly lower than the cumulative F.K.I. average of 112 p.s.i. gage.

A graphic comparison of the Elmendorf tear results shown in Table II for the various mills is given in Figures 4 and 5. These presentations show that Mills C, E, and S shared the highest machine direction tear average of 358 g./sheet, Mill I had the lowest average of 281 g./sheet. It may be further noted in Table II that the highest cross-machine direction tear average of 410 g./sheet was associated with Mill E and that the lowest average of 351 g./sheet was associated with Mill J. It may be observed also in Table II that the current F.K.I. averages for both machine and cross-machine direction Elmendorf tear are slightly lower than their respective cumulative F.K.I. averages.

A comparison of the F.K.I. indexes indicates that, for the current period, the current F.K.I. average for basis weight is slightly higher than the cumulative F.K.I. average, the current F.K.I. average for caliper is the same as the cumulative F.K.I. average, and the current F.K.I. averages for bursting strength, machine direction and cross-machine direction Elmendorf tear are slightly lower than their respective cumulative F.K.I. averages.

In order to compare the variation within a given mill, the test results for each particular mill have been tabulated in Tables III to XXI for Mills A through T, respectively.

In addition to the current and cumulative average, the mill factor and mill index are given for each mill. The cumulative mill average is the average test result obtained on the samples submitted by the particular mill for the previous twelve months excluding the current period. The mill factor and the mill index are obtained as follows:

$$\frac{\text{current mill average}}{\text{cumulative mill average}} \times 100 = \text{mill factor (\%)}$$

$$\frac{\text{current mill average}}{\text{cumulative F.K.I. average}} \times 100 = \text{mill index (\%)}$$

The mill factor and the mill index are a convenient means for comparing the current mill results either with the previous results for that particular mill or with the cumulative F.K.I. results. The reports also present a comparison of the test data obtained at the mills with test data obtained at The Institute of Paper Chemistry. These test data are presented and discussed on subsequent pages of this report.

It may be noted in Tables III through XXI that the test data include information about the sheet finish. The summarized results for the mills which submitted sample lots during the current period are shown in Table XXI-A.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958

TABLE III

MILL A -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
179986	WF1S	10/ 1/58	9/22/58	1	43.0	42.0	42.4	13.2	12.6	13.0	130	89	110	352	280	314	400	336	374
179987	WF1S	10/ 1/58	9/22/58	1	42.2	42.0	42.1	13.7	12.2	13.0	141	97	115	400	272	313[a]	400	320	358[a]
180019	WF1S	10/ 2/58	9/25/58	1	43.8	42.2	43.1	14.0	12.9	13.3	123	98	112	368	288	325	416	336	375[a]
180151	WF1S	10/17/58	10/ 8/58	1	44.8	43.2	44.0	13.7	11.7	13.0	135	90	111	368	280	318[a]	416	336	371[a]
Current Mill Average:							42.9			13.1			112			318			370
Cumulative Mill Average:							43.2			13.2			112			321			368
Mill Factor, %							99.3			99.2			100.0			99.1			100.5
Mill Index, %							99.3			103.1			100.0			95.8			98.7

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE IV

MILL B -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
179988	W.F.	10/ 1/58	9/ 6/58	1	44.4	42.0	43.4	13.9	13.0	13.4	142	97	117	304	224	266	368	304	347[a]
179989	W.F.	10/ 1/58	9/ 9/58	1	44.0	42.4	43.6	13.1	12.7	13.0	135	95	118	360	256	302	384	320	347[a]
179990	W.F.	10/ 1/58	9/12/58	1	44.2	43.6	43.9	13.7	12.4	13.1	142	91	118	304	248	281	384	320	351[a]
179991	W.F.	10/ 1/58	9/15/58	1	43.4	42.2	42.6	13.1	12.8	13.0	138	90	115	320	264	288	368	320	341[a]
180089	W.F.	10/13/58	9/18/58	1	44.2	42.8	43.3	14.0	12.8	13.3	140	80	116	304	240	269[a]	344	304	325[a]
180090	W.F.	10/13/58	9/23/58	1	44.0	42.4	43.5	13.2	12.2	12.9	140	100	118	352	256	305	384	344	363[a]
180091	W.F.	10/13/58	9/27/58	1	43.6	42.2	43.0	13.2	12.8	13.0	135	94	114	368	272	327	400	336	363[a]
180248	W.F.	10/23/58	10/ 6/58	1	43.8	42.4	43.2	13.9	12.8	13.2	138	111	122	376	280	313	424	352	387[a]
180249	W.F.	10/23/58	10/10/58	1	42.6	41.6	42.1	14.3	13.3	14.0	135	80	106	320	240	277	424	312	367[a]
180318	W.F.	10/27/58	10/14/58	1	43.4	42.2	42.5	13.8	13.0	13.6	136	96	115	312	232	275[a]	400	320	352[a]
180319	W.F.	10/27/58	10/18/58	1	44.2	42.4	43.6	14.2	12.3	13.3	135	87	113	328	232	279	392	312	339[a]
Current Mill Average:							43.2			13.2			116			289			353
Cumulative Mill Average:							42.9			13.4			114			291			358
Mill Factor, %							100.7			98.5			101.8			99.3			98.6
Mill Index, %							100.0			103.9			103.6			87.0			94.1

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE V

MILL C -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
180160	W.F.	10/20/58	9/23/58	-	44.2	42.2	43.5	13.3	12.0	12.6	137	97	113	408	288	357[a]	376	312	348[a]
180161	W.F.	10/20/58	9/23/58	-	44.4	43.2	44.0	13.1	12.1	12.6	127	104	117	392	328	359[a]	432	360	386[a]
Current Mill Average:							43.7			12.6			115			358			367
Cumulative Mill Average							43.6			12.3			112			354			366
Mill Factor, %							100.2			102.4			102.7			101.1			100.3
Mill Index, %							101.2			99.2			102.7			107.8			97.9

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE VI

MILL D -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
179993	W.F.	10/ 1/58	9/20/58	2	45.6	44.0	44.5	13.0	12.2	12.6	130	90	113	336	256	307	400	336	369[a]
179994	W.F.	10/ 1/58	9/20/58	2	45.4	44.0	44.4	13.2	12.6	13.0	132	87	104	352	256	315	368	320	346[a]
180017	W.F.	10/ 2/58	9/23/58	2	44.8	44.0	44.3	13.3	12.3	12.9	128	88	110	368	272	325	416	352	389[a]
180084	W.F.	10/13/58	9/23/58	2	45.2	44.0	44.5	13.2	12.7	13.0	133	96	112	352	288	321[a]	376	320	351[a]
180085	W.F.	10/13/58	9/24/58	2	45.6	44.2	44.8	13.4	12.5	13.0	141	87	112	352	256	305[a]	392	336	363[a]
180086	W.F.	10/13/58	9/24/58	2	44.6	43.6	44.2	13.3	12.3	13.0	135	81	107	352	240	299	400	336	367[a]
180079	W.F.	10/13/58	9/30/58	2	43.6	41.6	42.3	12.2	11.6	12.0	140	100	120	360	272	315	384	328	359[a]
180080	W.F.	10/13/58	9/30/58	2	43.8	42.0	42.6	12.1	11.3	11.9	134	103	120	352	272	320[a]	384	336	361[a]
Current Mill Average:							43.9			12.7			112			313			363
Cumulative Mill Average:							43.1			12.3			113			306			364
Mill Factor, %							101.9			103.3			99.1			102.3			99.7
Mill Index, %							101.6			100.0			100.0			94.3			96.8

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE VII

MILL E -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
180054	W.B.	10/ 9/58	9/19/58	-	44.8	42.0	43.6	12.2	11.1	11.8	133	107	118	400	320	355[a]	416	368	394[a]
180055	W.B.	10/ 9/58	9/22/58	-	45.0	43.0	44.0	12.8	11.8	12.3	126	98	115	416	344	380[a]	456	384	423[a]
180092	W.B.	10/13/58	9/23/58	-	44.0	41.0	42.9	12.8	12.0	12.2	127	104	115	376	320	355[a]	424	344	385[a]
180093	W.B.	10/13/58	9/25/58	-	44.0	41.6	43.4	12.9	11.9	12.3	127	86	111	376	320	347	424	352	391[a]
180094	W.B.	10/13/58	9/29/58	-	44.0	42.0	43.0	12.6	11.6	12.1	143	100	117	384	320	355	464	408	437[a]
180114	W.B.	10/16/58	10/ 6/58	-	44.2	42.8	43.7	12.6	12.0	12.2	134	90	111	400	320	366	464	376	419[a]
180115	W.B.	10/16/58	10/ 6/58	-	44.2	43.6	44.0	12.1	11.1	11.7	153	96	116	400	336	374	448	400	433[a]
180116	W.B.	10/16/58	10/ 6/58	-	43.8	42.2	43.1	12.0	10.9	11.6	135	101	122	400	328	353[a]	416	352	387[a]
180117	W.B.	10/16/58	10/ 8/58	-	44.2	42.8	43.6	12.0	11.2	11.7	136	103	120	416	312	345[a]	456	392	423[a]
180162	W.B.	10/20/58	10/ 8/58	-	44.0	42.4	43.1	12.6	11.5	12.1	146	90	117	400	296	348	464	392	427[a]
180163	W.B.	10/20/58	10/ 9/58	-	44.6	42.0	43.0	12.6	11.3	12.0	135	97	110	424	344	369[a]	456	360	420[a]
180320	W.B.	10/27/58	10/ 8/58	-	44.8	43.0	44.0	12.1	11.0	11.7	131	96	112	408	280	347	408	368	385[a]
Current Mill Average:							43.5			12.0			115			358			410
Cumulative Mill Average:							42.9			11.9			113			366			405
Mill Factor, %							101.4			100.8			101.8			97.8			101.2
Mill Index, %							100.7			94.5			102.7			107.8			109.3

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE VIII

MILL F -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
179984	W.F.	10/ 1/58	9/21/58	1	45.6	43.4	44.5	13.2	12.2	12.9	142	95	115	352	280	309[a]	424	352	379[a]
179985	W.F.	10/ 1/58	9/21/58	1	44.2	43.8	44.0	13.1	12.2	12.7	129	92	111	352	280	318	400	336	373[a]
180035	W.F.	10/ 7/58	9/28/58	1	43.6	42.4	43.0	12.6	12.0	12.2	126	100	113	352	280	324	384	336	357[a]
180036	W.F.	10/ 7/58	9/28/58	1	43.6	42.8	43.1	12.5	11.9	12.2	135	83	107	360	280	312[a]	392	336	357[a]
180112	W.F.	10/16/58	10/10/58	2	44.0	42.4	43.2	11.8	11.1	11.4	133	100	117	408	296	347	432	368	391[a]
180113	W.F.	10/16/58	10/10/58	2	43.8	42.6	43.2	11.7	10.8	11.4	132	103	116	368	288	327	448	376	400[a]
180212	W.F.	10/22/58	10/12/58	2	44.0	42.6	43.7	12.8	12.0	12.4	135	109	121	352	288	323	432	376	401[a]
180213	W.F.	10/22/58	10/16/58	1	43.6	42.2	42.8	12.8	12.0	12.3	123	84	110	368	304	330	392	320	359[a]
180254	W.F.	10/24/58	10/19/58	2	44.2	43.0	43.6	12.6	11.2	12.0	125	75	113	456	288	339[a]	416	352	385[a]
180255	W.F.	10/24/58	10/20/58	2	44.4	43.2	43.8	12.9	11.7	12.1	132	92	116	368	288	327	424	360	384[a]
Current Mill Average:							43.5			12.1			114			325			379
Cumulative Mill Average:							43.6			12.4			116			327			379
Mill Factor, %							99.8			97.6			98.3			99.4			100.0
Mill Index, %							100.7			95.3			101.8			97.9			101.1

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE IX

MILL G -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
180214	W.F.	10/22/58	10/ 2/58	-	45.6	44.0	44.7	12.8	12.0	12.3	132	95	115	416	336	378[a]	392	352	373[a]
180215	W.F.	10/22/58	10/ 2/58	-	44.4	42.4	43.4	12.2	11.4	11.9	142	105	125	384	304	345[a]	384	344	369[a]
180216	W.F.	10/22/58	10/10/58	-	43.6	41.6	42.4	12.1	11.2	11.8	125	90	110	400	320	361[a]	424	360	387[a]
180217	W.F.	10/22/58	10/13/58	-	44.0	40.6	42.8	12.0	11.0	11.4	130	86	111	400	304	349[a]	384	344	369[a]
180316	W.F.	10/27/58	10/21/58	-	44.2	42.6	43.5	12.7	11.4	12.0	138	98	114	376	296	339	456	360	385[a]
180317	W.F.	10/27/58	10/21/58	-	45.2	43.6	44.4	12.9	11.4	12.1	142	87	110	392	328	350[a]	448	352	404[a]
Current Mill Average:							43.5			11.9			114			354			381
Cumulative Mill Average:							43.7			12.2			115			342			381
Mill Factor, %							99.5			97.5			99.1			103.5			100.0
Mill Index, %							100.7			93.7			101.8			106.6			101.6

TABLE X

MILL H -- 42-LB. LINERBOARD

No samples submitted

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XI

MILL I -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
180027	W.F.	10/ 3/58	9/ 8/58	1	45.8	42.0	44.2	14.0	12.5	13.2	132	88	112	304	248	275	400	312	366[a]
180028	W.F.	10/ 3/58	9/16/58	1	45.0	42.0	44.0	14.1	12.9	13.2	137	75	106	328	240	287[a]	376	288	342[a]
Current Mill Average:							44.1			13.2			109			281			354
Cumulative Mill Average:							43.3			12.7			109			289			348
Mill Factor, %							101.8			103.9			100.0			97.2			101.7
Mill Index, %							102.1			103.9			97.3			84.6			94.4

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XII

MILL J -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
180008	WF1S	10/ 1/58	9/14/58	2	44.0	42.0	43.0	13.8	12.9	13.3	130	90	111	384	272	298[a]	400	320	361[a]
180009	WF1S	10/ 1/58	9/15/58	2	43.8	42.0	42.8	13.7	13.0	13.2	130	85	109	368	272	311	376	328	353[a]
180100	WF1S	10/15/58	9/16/58	2	43.0	41.6	42.3	13.7	13.0	13.3	131	97	113	360	280	314[a]	416	320	354[a]
180256	WF1S	10/24/58	9/18/58	2	45.0	42.2	43.8	14.2	13.0	13.7	120	92	108	448	320	364[a]	368	288	329[a]
180257	WF1S	10/24/58	9/27/58	2	44.0	41.8	43.1	14.1	12.5	13.5	132	103	115	384	296	335[a]	392	328	359[a]
Current Mill Average:							43.0			13.4			111			324			351
Cumulative Mill Average:							43.0			13.6			115			334			370
Mill Factor, %							100.0			98.5			96.5			97.0			94.9
Mill Index, %							99.5			105.5			99.1			97.6			93.6

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XIII

MILL K -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
180018	W.F.	10/ 2/58	9/17/58	2	44.0	43.2	43.8	13.7	13.1	13.3	128	83	107	384	288	339	408	352	380[a]
180329	W.F.	10/28/58	9/22/58	2	44.0	42.6	43.4	12.9	12.1	12.4	134	89	113	384	272	314	432	360	392[a]
180330	W.F.	10/28/58	10/ 1/58	2	43.8	42.2	43.0	13.0	12.1	12.6	133	66	113	368	272	325	408	336	378[a]
180331	W.F.	10/28/58	10/ 8/58	2	44.4	42.4	43.5	12.9	12.2	12.6	130	94	112	352	288	321	408	352	386[a]
Current Mill Average:							43.4			12.7			111			325			384
Cumulative Mill Average:							43.2			12.8			113			347			386
Mill Factor, %							100.5			99.2			98.2			93.7			99.5
Mill Index, %							100.5			100.0			99.1			97.9			102.4

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XIV

MILL L -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
180101	WF1S	10/15/58	10/ 6/58	2	43.2	42.0	42.6	13.5	12.6	13.0	128	94	110	384	304	335[a]	424	352	391[a]
Current Mill Average:							42.6			13.0			110			335			391
Cumulative Mill Average:							43.5			12.8			113			339			386
Mill Factor, %							97.9			101.6			97.3			98.8			101.3
Mill Index, %							98.6			102.4			98.2			100.9			104.3

TABLE XV

MILL M -- 42-LB. LINERBOARD

180253	WF1S	10/24/58	10/15/58	1	44.0	42.4	43.2	12.7	12.0	12.3	122	92	107	384	240	297	416	320	369[a]
180332	WF1S	10/28/58	10/18/58	1	43.6	42.0	42.9	12.9	11.8	12.1	131	80	109	352	256	289	456	352	297[a]
Current Mill Average:							43.0			12.2			108			293			383
Cumulative Mill Average:							42.8			12.5			112			306			388
Mill Factor, %							100.5			97.6			96.4			95.8			98.7
Mill Index, %							99.5			96.1			96.4			88.3			102.1

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XVI

MILL N -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
180056	W.F.	10/ 9/58	9/ 8/58	1	44.4	42.0	43.2	13.7	13.0	13.3	126	83	102	352	296	327[a]	408	344	373
180057	W.F.	10/ 9/58	9/ 8/58	1	44.2	41.4	42.5	13.8	12.3	13.1	127	90	107	328	280	305	384	344	365[a]
180058	W.F.	10/ 9/58	9/19/58	2	46.8	45.8	46.2	14.2	13.0	13.6	132	88	109	456	328	375[a]	456	376	407[a]
180059	W.F.	10/ 9/58	9/25/58	1	42.2	40.6	41.5	12.8	11.7	12.4	118	97	109	352	288	318	400	312	349[a]
Current Mill Average:							43.4			13.1			107			332			374
Cumulative Mill Average:							43.8			13.2			108			363			398
Mill Factor, %							99.1			99.2			99.1			91.5			94.0
Mill Index, %							100.5			103.1			95.5			100.0			99.7

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XVII

MILL O -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
180032	----	10/ 7/58	9/30/58	2	43.8	42.0	42.8	13.2	12.3	12.8	134	94	111	416	304	357[a]	432	368	398[a]
180033	----	10/ 7/58	9/30/58	1	43.4	41.8	42.4	12.9	11.9	12.2	128	90	111	392	304	340	424	336	375[a]
180087	----	10/13/58	10/ 3/58	2	42.4	41.0	41.8	12.8	11.7	12.3	140	101	119	392	264	333[a]	464	360	402[a]
Current Mill Average:							42.3			12.4			114			343			392
Cumulative Mill Average:							42.4			12.8			113			347			395
Mill Factor, %							99.8			96.9			100.9			98.8			99.2
Mill Index, %							97.9			97.6			101.8			103.3			104.5

TABLE XVIII

MILL P -- 42-LB. LINERBOARD

No samples submitted

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XIX

MILL Q -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
180037	WF1S	10/ 7/58	9/26/58	1	44.4	42.0	43.5	13.2	12.4	12.8	126	92	112	360	272	311[a]	376	328	351[a]
180038	WF1S	10/ 7/58	9/29/58	1	44.4	43.0	43.7	13.3	12.7	13.0	129	64	96	384	264	307	408	320	363[a]
180039	WF1S	10/ 7/58	9/29/58	1	45.6	41.8	43.7	13.6	12.3	13.0	136	75	102	376	280	309[a]	408	320	360[a]
180088	WF1S	10/13/58	9/30/58	1	44.2	42.8	43.5	13.2	12.0	12.8	130	84	110	352	232	293[a]	416	328	367[a]
Current Mill Average:							43.6			12.9			105			305			360
Cumulative Mill Average:							43.1			13.0			109			307			365
Mill Factor, %							101.2			99.2			96.3			99.3			98.6
Mill Index, %							100.9			101.6			93.8			91.9			96.0

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XX

MILL S -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
179992	W.	10/ 1/58	9/24/58	4	43.4	41.8	42.4	11.3	10.6	11.0	128	90	111	368	312	334	384	336	361[a]
180034	W.	10/ 7/58	9/29/58	2	43.6	41.6	42.7	13.6	12.7	13.1	123	83	107	408	304	366[a]	416	352	375[a]
180314	W.	10/27/58	10/ 1/58	2	44.4	43.6	44.0	14.0	13.1	13.6	133	91	110	432	360	389[a]	440	352	382[a]
180315	W.	10/27/58	10/20/58	2	42.6	41.8	42.1	13.8	12.3	13.1	120	84	108	400	288	341	392	328	361[a]
Current Mill Average:							42.8			12.7			109			358			370
Cumulative Mill Average:							42.8			13.2			108			362			373
Mill Factor, %							100.0			96.2			100.9			98.9			99.2
Mill Index, %							99.1			100.0			97.3			107.8			98.7

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

SUMMARY OF INSTITUTE DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XXI

MILL T -- 42-LB. LINERBOARD

File No.	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
														In			Across		
					Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
179981	W.F.	10/ 1/58	9/17/58	-	47.0	46.0	46.3	12.6	11.4	12.1	133	91	112	360	280	319	448	344	384[a]
179982	W.F.	10/ 1/58	9/18/58	-	46.0	44.0	45.5	13.2	12.7	13.0	134	100	112	368	296	339	448	320	391[a]
179983	W.F.	10/ 1/58	9/19/58	-	44.0	41.8	43.1	13.0	11.9	12.6	130	84	107	352	280	319[a]	400	312	352[a]
180041	W.F.	10/ 8/58	10/ 1/58	-	47.8	46.0	46.9	13.3	12.6	12.9	128	95	109	368	288	328	416	352	392[a]
180042	W.F.	10/ 8/58	10/ 2/58	-	44.2	43.0	43.8	13.1	12.1	12.8	122	80	103	368	280	323[a]	408	336	374[a]
180053	W.F.	10/ 9/58	10/ 3/58	-	46.0	45.0	45.8	13.1	12.2	12.6	144	107	125	384	272	331[a]	416	336	378[a]
180154	W.F.	10/20/58	10/ 8/58	-	43.8	42.4	43.0	12.2	11.8	12.0	134	101	115	352	288	313[a]	400	320	363[a]
180155	W.F.	10/20/58	10/ 9/58	-	44.0	41.6	43.0	12.2	11.9	12.1	122	85	107	392	320	353[a]	416	336	371[a]
180156	W.F.	10/20/58	10/10/58	-	42.0	40.0	40.4	12.0	11.2	11.6	130	83	107	384	296	343[a]	376	312	339[a]
180157	W.F.	10/20/58	10/15/58	-	46.4	46.0	46.1	13.1	12.1	12.5	135	100	115	360	288	329[a]	424	352	395[a]
180158	W.F.	10/20/58	10/16/58	-	45.4	44.4	44.9	13.1	12.3	12.7	138	97	113	392	304	354[a]	384	344	367[a]
180159	W.F.	10/20/58	10/17/58	-	44.0	42.4	43.4	13.2	12.3	12.8	130	95	111	392	288	349[a]	392	344	369[a]
Current Mill Average:							44.3			12.5			111			333			373
Cumulative Mill Average:							44.1			12.8			110			337			368
Mill Factor, %							100.5			97.7			100.9			98.8			101.4
Mill Index, %							102.5			98.4			99.1			100.3			99.5

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XXI-A

SUMMARY OF SHEET FINISH DATA

Mill Code	(No. of Sample Lots) Finish W.F.	W.F.I.S.	Other
A		4	
B	11		
C	2		
D	8		
E	12[a]		
F	10		
G	6		
H	No samples submitted.		
I	2		
J		5	
K	4		
L		1	
M		2	
N	4		
O			3[b]
P	No samples submitted.		
Q		4	
S	4		
T	12		
Total	75	16	3

[a] W.B.
[b] Unidentified.

PART II. DISCUSSION AND COMPARISON OF RESULTS OBTAINED AT THE INSTITUTE OF PAPER CHEMISTRY WITH THOSE OBTAINED AT THE MILLS

As a supplementary part of the Continuous Baseline Study, comparisons of the mill test results with those obtained at The Institute of Paper Chemistry on corresponding samples have been included in this report. As may be noted in Table XXII, the atmospheric conditions used prior to and during the testing period were relatively uniform for the mills which reported this information. However, the preconditioning and conditioning time periods varied considerably.

A summary of the Institute and mill test results for the current period is shown in Table XXIII, and a comparison of differences between Institute and mill test results is given in Table XXIV for the current period and the two previous periods.

A comparison of the test data in Tables XXIII and XXIV reveals the level of agreement between mill and Institute data for basis weight, caliper, bursting strength, and Elmendorf tear. Table XXIII shows the over-all average difference between Institute and mill results for each of these tests based on the data for all sample lots submitted by each mill for the current period. In addition, the maximum difference encountered in comparing the Institute and mill test results for a given sample lot is shown. In Table XXIV, the over-all average differences shown for each test in Table XXIII have been calculated on a percentage basis for each mill. In addition, for purposes of comparison, the average percentage differences for the preceding two periods are shown.

TABLE XXII

PRECONDITIONING AND CONDITIONING DATA FOR THE MILL TESTS

Mill Code	Preconditioning R.H., %	Preconditioning Temperature, °F.	Preconditioning Time, hr.	Conditioning R.H., %	Conditioning Temperature, °F.	Conditioning Time, hr.
A		None		50-60	74-89	None
B		None		48-77	84-88	--
C		None		50	73	0.5
D	50	73	24	50	73	24
E		None		41-50	73-75	48
F		None		50	73	24
G		None		50	73	24-48+
H		No samples submitted.				
I	46-48	78-79	0.5	50	73	24-48
J	50	72	24		None	
K		None		50	73	24
L		None		50	73	24
M		None		52-58	67-70	--
N	50	73	24	50	73	24
O		None		50	73	24-48
P		No samples submitted.				
Q	50	74	24-144	50	74	2
S		None		53	73	--
T	34-36	77-78	8	48-52	72	16

TABLE XXIII

SUMMARY OF TEST RESULT COMPARISONS (AVERAGE MILL AND INSTITUTE RESULTS)

Mills*	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	S	T
No. Samples Compared	4	11	2	8	12	10	6	0	2	5	4	1	2	4	3	0	4	4	12
Basis Weight																			
Institute	42.9	43.2	43.7	43.9	43.5	43.5	43.5		44.1	43.0	43.4	42.6	43.0	43.4	42.3		43.6	42.8	44.3
Mill	42.6	42.3	42.9	43.8	42.8	43.0	43.0		43.2	43.5	43.0	42.6	42.4	43.3	42.0		43.3	42.5	43.7
Av. Diff.**	-0.3	-0.9	-0.8	-0.1	-0.7	-0.5	-0.5		-0.9	+0.5	-0.4	0.0	-0.6	-0.1	-0.3		-0.3	-0.3	-0.6
Max. Diff.***	-1.3	-1.5	-0.9	-0.7	-1.3	-1.0	-0.8		-1.2	+1.2	-0.7	0.0	-0.8	-0.4	-0.6		-0.6	-0.5	-2.6
Caliper																			
Institute	13.1	13.2	12.6	12.7	12.0	12.1	11.9		13.2	13.4	12.7	13.0	12.2	13.1	12.4		12.9	12.7	12.5
Mill	13.0	13.0	12.4	12.3	11.5	12.0	11.8		13.0	13.2	12.4	13.2	12.1	12.6	12.5		12.3	12.4	12.1
Av. Diff.**	-0.1	-0.2	-0.2	-0.4	-0.5	-0.1	-0.1		-0.2	-0.2	-0.3	+0.2	-0.1	-0.5	+0.1		-0.6	-0.3	-0.4
Max. Diff.***	±0.2	-0.7	-0.3	-0.6	-0.7	-0.5	-0.2		-0.2	-0.3	-0.4	+0.2	-0.2	-0.6	+0.2		-0.7	-0.6	-0.7
Bursting Strength																			
Institute	112	116	115	112	115	114	114		109	111	111	110	108	107	114		105	109	111
Mill	114	115	112	112	115	116	114		116	110	111	104	107	110	109		100	111	109
Av. Diff.**	+2	-1	-3	0	0	+2	0		+7	-1	0	-6	-1	+3	-5		-5	+2	-2
Max. Diff.***	+4	±5	-4	+5	±4	+9	-4		+10	-3	±8	-6	-3	+8	-6		-8	+5	-9
Tearing Strength, in																			
Institute	318	289	358	313	358	325	354		281	324	325	335	293	332	343		305	358	333
Mill	360	271	323	242	326	327	329		286	342	379	339	327	331	—		268	346	318
Av. Diff.**	+42	-18	-35	-71	-32	+2	-25		+5	+18	+54	+4	+34	-1	—		-37	-12	-15
Max. Diff.***	+80	-42	-50	-132	-81	+31	-42		+13	+37	+72	+4	+48	+18	—		-46	-25	-39
Tearing Strength, across																			
Institute	370	353	367	363	410	379	381		354	351	384	391	383	374	392		360	370	373
Mill	419	356	360	305	394	384	388		371	383	432	412	398	392	—		348	381	349
Av. Diff.**	+49	+3	-7	-58	-16	+5	+7		+17	+32	+48	+21	+15	+18	—		-12	+11	-24
Max. Diff.***	+72	+22	-11	-104	-48	+22	+47		+30	+54	+51	+21	+16	+29	—		-19	+31	-67

* Comparison based on averages involved only those samples on which mill test data were submitted.
** Average difference is the difference between the Institute mill average and the mill average based on mill test data.
*** Maximum difference encountered in comparing the Institute average and the mill averages for any sample submitted by that particular mill.

TABLE XXIV

COMPARISON OF INSTITUTE-MILL DIFFERENCES BY PERIODS
Average Difference, %

Mill	Period	Basis Weight	Caliper	Burst	Tear, in	Tear, across
A	Current	-0.7	-0.8	+2	+13	+13
	135th	-1	-3	-6	+12	+11
	134th	-2	-4	-6	+11	+18
B	Current	-2	-2	-0.9	-6	+0.8
	135th	-2	-4	-3	-14	-3
	134th	-1	-4	0	- 7	+3
C	Current	-2	-2	-3	-10	-2
	135th	-2	-3	-0.9	-4	+0.3
	134th	-3	-2	0	- 7	+0.8
D	Current	-0.2	-3	0	-23	-16
	135th	+0.2	-3	-0.9	-1	+0.8
	134th	+0.5	-2	-2	- 1	+1
E	Current	-2	-4	0	-9	-4
	135th	-0.9	-3	-0.9	-5	-2
	134th	+0.2	-3	0	-2	+2
F	Current	-1	-0.8	+2	+0.6	+1
	135th	-1	-2	+2	+3	+6
	134th	-1	-2	+2	+3	+5
G	Current	-1	-0.8	0	-7	+2
	135th	0	+0.9	+0.9	-2	+5
	134th	-0.2	0	-0.9	-4	+6
H	Current	--	--	--	--	--
	135th	--	--	--	--	--
	134th	--	--	--	--	--
I	Current	-2	-2	+6	+2	+5
	135th	-2	-2	+4	+8	+6
	134th	-0.2	0	+0.9	0	+3
J	Current	+1	-1	-0.9	+6	+9
	135th	+0.7	-1	-0.9	+6	+5
	134th	+0.9	-3	+2	+3	+9
K	Current	-0.9	-2	0	+17	+12
	135th	0	-4	+3	+8	+10
	134th	+0.5	-4	+5	+9	+13
L	Current	0	+2	-5	+1	+5
	135th	0	-2	-15	-6	+9
	134th	-0.7	-2	-7	-11	-1
M	Current	-1	-0.8	-0.9	+12	+4
	135th	--	--	--	--	--
	134th	-0.9	0	-2	+11	+9
N	Current	-0.2	-4	+3	-0.3	+5
	135th	-0.9	-4	+3	-12	+0.8
	134th	-0.7	-5	0	+1	+12
O	Current	-0.7	+0.8	-4	--	--
	135th	-3	-2	-4	--	--
	134th	0	-3	-5	--	--
P	Current	--	--	--	--	--
	135th	--	--	--	--	--
	134th	--	--	--	--	--
Q	Current	-0.7	-5	-5	-12	- 3
	135th	-0.5	-3	-4	-5	+4
	134th	-2	-4	-3	-6	+4
S	Current	-0.7	-2	+2	-3	+3
	135th	-0.9	0	+6	-7	+2
	134th	-2	-6	+1	-6	-4
T	Current	-1	-3	-2	-5	-6
	135th	-1	-2	+2	-3	-2
	134th	-0.7	-2	0	-3	-3

It may be noted in Table XXIV that for the current period the largest average difference (per cent) between the average basis weight results of the Institute and those of a given mill on corresponding samples is two per cent. By comparison, the largest average difference (per cent) noted for the previous two periods was three per cent. Further, it may be noted that the average basis weight result for Mill J was higher than that for the Institute, the average result for Mill L was the same, and the average results for the other mills were lower. None of the variations appeared to be inordinate.

The maximum variation in caliper for the current period is five per cent. This is slightly lower than the maximum variation of six per cent for the previous two periods. Compared with the Institute's results, the average test results for Mills L and O were higher, and the average test results for the other mills were lower. The variations of 0.5 point or more for Mills E, N, and Q may be excessive.

It may be noted in Table XXIV that the bursting strength results exhibited a maximum variation of six per cent for the current period. The average results for Mills A, F, I, N, and S were higher than those for the Institute, the average results for Mills D, E, G, and K were the same, and the average results for the other mills were lower. None of the variations appear to be exceptionally large. Agreement between Institute and mill results is very good.

It may be seen in Tables XXIII and XXIV that the average machine direction tear results for Mills A, F, I, J, K, L, and M were higher than those for the Institute, and the average results for the other mills were lower.

The maximum variation for the current period was twenty-three per cent. Agreement between the Institute and mill results is good in most cases. However, several mills--namely, A, D, K, M, and Q--are associated with differences greater than ten per cent which may be excessive. The variation of twenty-three per cent for Mill D is exceptionally large.

With regard to the cross-machine direction tear results, it may be noted that the average results for Mills A, B, F, G, I, J, K, L, M, N, and S were higher than those for the Institute, whereas the average results for Mills C, D, E, Q, and T were lower. The maximum variation for the current period was fifteen per cent. As in the case of the machine direction results, agreement between Institute and mill results is generally good. Only Mills A, D, and K are associated with test results which vary by more than ten per cent from the Institute result and consequently may be excessive.

The comparisons of Institute and mill data for individual sample lots are given in Tables XXV to XLIII for the various mills. In all the comparisons given in Tables XXV to XLIII, the Institute's test values have been used as the reference line.

COMPARISON OF INSTITUTE AND MILL DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958

TABLE XXV

MILL A -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
179986	WF1S	9/22/58	1	42.4	42.4	0.0	13.0	12.8	-0.2	110	114	+ 4	314	362	+48	374	407	+33
179987	WF1S	9/22/58	1	42.1	42.6	+0.5	13.0	12.9	-0.1	115	115	0	313[a]	369	+56	358[a]	411	+53
180019	WF1S	9/25/58	1	43.1	42.7	-0.4	13.3	13.5	+0.2	112	113	+ 1	325	405	+80	375[a]	447	+72
180151	WF1S	10/ 8/58	1	44.0	42.7	-1.3	13.0	13.0	0.0	111	111	0	318[a]	304	-14	371[a]	409	+38
Current Mill Average:				42.9	42.6	-0.3	13.1	13.0	-0.1	112	114	+ 2	318	360	+42	370	419	+49

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XXVI

MILL B -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
179988	W.F.	9/ 6/58	1	43.4	42.9	-0.5	13.4	13.1	-0.3	117	114	- 3	266	246	-20	347[a]	344	- 3
179989	W.F.	9/ 9/58	1	43.6	42.5	-1.1	13.0	12.9	-0.1	118	118	0	302	295	- 7	347[a]	369	+22
179990	W.F.	9/12/58	1	43.9	42.8	-1.1	13.1	12.9	-0.2	118	123	+ 5	281	275	- 6	351[a]	365	+14
179991	W.F.	9/15/58	1	42.6	42.4	-0.2	13.0	12.9	-0.1	115	117	+ 2	288	289	+ 1	341[a]	363	+22
180089	W.F.	9/18/58	1	43.3	41.9	-1.4	13.3	12.9	-0.4	116	116	0	269[a]	231	-38	325[a]	322	- 3
180090	W.F.	9/23/58	1	43.5	42.8	-0.7	12.9	12.9	0.0	118	114	- 4	305	263	-42	363[a]	344	-19
180091	W.F.	9/27/58	1	43.0	41.9	-1.1	13.0	12.9	-0.1	114	114	0	327	289	-38	363[a]	372	+ 9
180248	W.F.	10/ 6/58	1	43.2	41.8	-1.4	13.2	12.9	-0.3	122	117	- 5	313	231	-32	387[a]	377	-10
180249	W.F.	10/10/58	1	42.1	42.2	+0.1	14.0	13.3	-0.7	106	109	+ 3	277	286	+ 9	367[a]	380	+13
180318	W.F.	10/14/58	1	42.5	41.8	-0.7	13.6	12.9	-0.7	115	117	+ 2	275[a]	254	-21	352[a]	337	-15
180319	W.F.	10/18/58	1	43.6	42.1	-1.5	13.3	13.0	-0.3	113	108	- 5	279	270	- 9	339[a]	346	+ 7
Current Mill Average:				43.2	42.3	-0.9	13.2	13.0	-0.2	116	115	- 1	289	271	-18	353	356	+ 3

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XXVII

MILL C -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
180160	W.F.	9/23/58	--	43.5	42.7	-0.8	12.6	12.3	-0.3	113	111	- 2	357[a]	307	-50	348[a]	345	- 3
180161	W.F.	9/23/58	--	44.0	43.1	-0.9	12.6	12.5	-0.1	117	113	- 4	359[a]	339	-20	386[a]	375	-11
Current Mill Average:				43.7	42.9	-0.8	12.6	12.4	-0.2	115	112	- 3	358	323	-35	367	360	- 7

TABLE XXVIII

MILL D -- 42-LB. LINERBOARD

179993	W.F.	9/20/58	2	44.5	44.4	-0.1	12.6	12.2	-0.4	113	116	+ 3	307	305	- 2	369[a]	392	+ 23
179994	W.F.	9/20/58	2	44.4	44.2	-0.2	13.0	12.5	-0.5	104	109	+ 5	315	317	+ 2	346[a]	349	+ 3
180017	W.F.	9/23/58	2	44.3	44.6	+0.3	12.9	12.6	-0.3	110	108	- 2	325	269	- 56	389[a]	341	- 48
180084	W.F.	9/23/58	2	44.5	44.2	-0.3	13.0	12.6	-0.4	112	108	- 4	321[a]	189	-132	351[a]	274	- 77
180085	W.F.	9/24/58	2	44.8	44.1	-0.7	13.0	12.7	-0.3	112	108	- 4	305[a]	197	-108	363[a]	259	-104
180086	W.F.	9/24/58	2	44.2	44.3	+0.1	13.0	12.4	-0.6	107	108	+ 1	299	198	-101	367[a]	269	- 98
180079	W.F.	9/30/58	2	42.3	42.4	+0.1	12.0	11.7	-0.3	120	118	- 2	315	233	- 82	359[a]	274	- 85
180080	W.F.	9/30/58	2	42.6	42.2	-0.4	11.9	11.7	-0.2	120	118	- 2	320[a]	229	- 91	361[a]	285	- 76
Current Mill Average:				43.9	43.8	-0.1	12.7	12.3	-0.4	112	112	0	313	242	- 71	363	305	- 58

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XXIX

MILL E -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
180054	W.B.	9/19/58	--	43.6	43.7	+0.1	11.8	11.4	-0.4	118	117	- 1	355[a]	309	-46	394[a]	365	-29
180055	W.B.	9/22/58	--	44.0	43.4	-0.6	12.3	12.0	-0.3	115	115	0	380[a]	353	-27	423[a]	400	-23
180092	W.B.	9/23/58	--	42.9	42.4	-0.5	12.2	11.5	-0.7	115	112	- 3	355[a]	325	-30	385[a]	373	-12
180093	W.B.	9/25/58	--	43.4	43.1	-0.3	12.3	11.9	-0.4	111	113	+ 2	347	348	+ 1	391[a]	383	- 8
180094	W.B.	9/29/58	--	43.0	42.7	-0.3	12.1	11.5	-0.6	117	113	- 4	355	344	-11	437[a]	424	-13
180114	W.B.	10/ 6/58	--	43.7	42.5	-1.2	12.2	11.8	-0.4	111	113	+ 2	366	320	-46	419[a]	401	-18
180115	W.B.	10/ 6/58	--	44.0	42.7	-1.3	11.7	11.2	-0.5	116	120	+ 4	374	293	-81	433[a]	385	-48
180116	W.B.	10/ 6/58	--	43.1	42.2	-0.9	11.6	11.0	-0.6	122	118	- 4	353[a]	301	-52	387[a]	395	+ 8
180117	W.B.	10/ 8/58	--	43.6	42.8	-0.8	11.7	11.1	-0.6	120	121	+ 1	345[a]	308	-37	423[a]	401	-22
180162	W.B.	10/ 8/58	--	43.1	42.5	-0.6	12.1	11.4	-0.7	117	114	- 3	348	349	+ 1	427[a]	427	0
180163	W.B.	10/ 9/58	--	43.0	42.5	-0.5	12.0	11.6	-0.4	110	112	+ 2	369[a]	359	-10	420[a]	415	- 5
180320	W.B.	10/ 8/58	--	44.0	43.1	-0.9	11.7	11.4	-0.3	112	114	+ 2	347	301	-46	385[a]	357	-28
Current Mill Average:				43.5	42.8	-0.7	12.0	11.5	-0.5	115	115	0	358	326	-32	410	394	-16

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XXX

MILL F -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
179984	W.F.	9/21/58	1	44.5	43.5	-1.0	12.9	12.6	-0.3	115	115	0	309[a]	340	+31	379[a]	391	+12
179985	W.F.	9/21/58	1	44.0	43.1	-0.9	12.7	12.6	-0.1	111	114	+3	318	331	+13	373[a]	391	+18
180035	W.F.	9/28/58	1	43.0	42.7	-0.3	12.2	12.2	0.0	113	117	+4	324	324	0	357[a]	374	+17
180036	W.F.	9/28/58	1	43.1	43.5	+0.4	12.2	12.1	-0.1	107	116	+9	312[a]	330	+18	357[a]	379	+22
180112	W.F.	10/10/58	2	43.2	42.4	-0.8	11.4	11.5	+0.1	117	116	-1	347	324	-23	391[a]	394	+ 3
180113	W.F.	10/10/58	2	43.2	42.5	-0.7	11.4	11.5	+0.1	116	115	-1	327	318	- 9	400[a]	388	-12
180212	W.F.	10/12/58	2	43.7	43.0	-0.7	12.4	12.0	-0.4	121	117	-4	323	316	- 7	401[a]	386	-15
180213	W.F.	10/16/58	1	42.8	42.8	0.0	12.3	12.3	0.0	110	115	+5	330[a]	326	- 4	359[a]	374	+15
180254	W.F.	10/19/58	2	43.6	42.8	-0.8	12.0	11.5	-0.5	113	117	+4	339[a]	330	- 9	385[a]	381	- 4
180255	W.F.	10/20/58	2	43.8	43.3	-0.5	12.1	12.0	-0.1	116	117	+1	327	333	+ 6	384[a]	382	- 2
Current Mill Average:				43.5	43.0	-0.5	12.1	12.0	-0.1	114	116	+2	325	327	+ 2	379	384	+ 5

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XXXI

MILL G -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
180214	W.F.	10/ 2/58	--	44.7	44.4	-0.3	12.3	12.3	0.0	115	118	+ 3	378[a]	349	-29	373[a]	383	+10
180215	W.F.	10/ 2/58	--	43.4	42.6	-0.8	11.9	11.8	-0.1	125	121	- 4	345[a]	341	- 4	369[a]	416	+47
180216	W.F.	10/10/58	--	42.4	42.5	+0.1	11.8	11.8	0.0	110	108	- 2	361[a]	336	-25	387[a]	384	- 3
180217	W.F.	10/13/58	--	42.8	42.2	-0.6	11.4	11.4	0.0	111	110	- 1	349[a]	321	-28	369[a]	389	+20
180316	W.F.	10/21/58	--	43.5	42.7	-0.8	12.0	11.8	-0.2	114	114	0	339	297	-42	385[a]	367	-18
180317	W.F.	10/21/58	--	44.4	43.8	-0.6	12.1	12.1	0.0	110	112	+ 2	350[a]	327	-23	404[a]	392	-12
Current Mill Average:				43.5	43.0	-0.5	11.9	11.8	-0.1	114	114	0	354	329	-25	381	388	+ 7

TABLE XXXII

MILL H -- 42-LB. LINERBOARD

No samples submitted

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XXXIII

MILL I -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
180027	W.F.	9/ 8/58	1	44.2	43.5	-0.7	13.2	13.0	-0.2	112	116	+ 4	275	288	+13	366[a]	371	+ 5
180028	W.F.	9/16/58	1	44.0	42.8	-1.2	13.2	13.0	-0.2	106	116	+10	287[a]	285	- 2	342[a]	372	+30
Current Mill Average:				44.1	43.2	-0.9	13.2	13.0	-0.2	109	116	+ 7	281	286	+ 5	354	371	+17

TABLE XXXIV

MILL J -- 42-LB. LINERBOARD

180008	WF1S	9/14/58	2	43.0	44.2	+1.2	13.3	13.0	-0.3	111	112	+ 1	298[a]	335	+37	361[a]	391	+30
180009	WF1S	9/15/58	2	42.8	42.6	-0.2	13.2	13.2	0.0	109	106	- 3	311	342	+31	353[a]	376	+23
180100	WF1S	9/16/58	2	42.3	43.0	+0.7	13.3	13.0	-0.3	113	114	+ 1	314[a]	324	+10	354[a]	372	+18
180256	WF1S	9/18/58	2	43.8	44.3	+0.5	13.7	13.5	-0.2	108	106	- 2	364[a]	368	+ 4	329[a]	383	+54
180257	WF1S	9/27/58	2	43.1	43.3	+0.2	13.5	13.2	-0.3	115	114	- 1	335[a]	342	+ 7	359[a]	391	+32
Current Mill Average:				43.0	43.5	+0.5	13.4	13.2	-0.2	111	110	- 1	324	342	+18	351	383	+32

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XXXV

MILL K -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
180018	W.F.	9/17/58	2	43.8	43.1	-0.7	13.3	13.0	-0.3	107	115	+ 8	339	393	+54	380[a]	429	+49
180329	W.F.	9/22/58	2	43.4	43.3	-0.1	12.4	12.2	-0.2	113	111	- 2	314	386	+72	392[a]	443	+51
180330	W.F.	10/ 1/58	2	43.0	42.6	-0.4	12.6	12.2	-0.4	113	105	- 8	325	370	+45	378[a]	419	+41
180331	W.F.	10/ 8/58	2	43.5	43.1	-0.4	12.6	12.2	-0.4	112	112	0	321	367	+46	386[a]	437	+51
Current Mill Average:				43.4	43.0	-0.4	12.7	12.4	-0.3	111	111	0	325	379	+54	384	432	+48

TABLE XXXVI

MILL L -- 42-LB. LINERBOARD

180101	WFIS	10/ 6/58	2	42.6	42.6	0.0	13.0	13.2	+0.2	110	104	- 6	335[a]	339	+ 4	391[a]	412	+21
Current Mill Average:				42.6	42.6	0.0	13.0	13.2	+0.2	110	104	- 6	335	339	+ 4	391	412	+21

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XXXVII

MILL M -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
180253	WFLS	10/15/58	1	43.2	42.4	-0.8	12.3	12.1	-0.2	107	107	0	297	318	+21	369[a]	383	+14
180332	WFLS	10/18/58	1	42.9	42.5	-0.4	12.1	12.2	+0.1	109	106	- 3	289	337	+48	397[a]	413	+16
Current Mill Average:				43.0	42.4	-0.6	12.2	12.1	-0.1	108	107	- 1	293	327	+34	383	398	+15

TABLE XXXVIII

MILL N -- 42-LB. LINERBOARD

180056	W.F.	9/ 8/58	1	43.2	43.5	+0.3	13.3	12.8	-0.5	102	110	+ 8	327[a]	321	- 6	373	390	+17
180057	W.F.	9/ 8/58	1	42.5	42.2	-0.3	13.1	12.5	-0.6	107	110	+ 3	305	309	+ 4	365[a]	370	+ 5
180058	W.F.	9/19/58	2	46.2	45.8	-0.4	13.6	13.1	-0.5	109	109	0	375[a]	393	+18	407[a]	431	+24
180059	W.F.	9/25/58	1	41.5	41.6	+0.1	12.4	12.0	-0.4	109	110	+ 1	318	303	-15	349[a]	378	+29
Current Mill Average:				43.4	43.3	-0.1	13.1	12.6	-0.5	107	110	+ 3	332	331	- 1	374	392	+18

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XXIX

MILL O -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
180032		9/30/58	2	42.8	42.2	-0.6	12.8	12.8	0.0	111	106	- 5	357[a]	---		398[a]	---	
180033		9/30/58	1	42.4	42.2	-0.2	12.2	12.4	+0.2	111	108	- 3	340	---		375[a]	---	
180087		10/ 3/58	2	41.8	41.6	-0.2	12.3	12.2	-0.1	119	113	- 6	333[a]	---		402[a]	---	
Current Mill Average:				42.3	42.0	-0.3	12.4	12.5	+0.1	114	109	- 5	343			392		

TABLE XL

MILL P -- 42-LB. LINERBOARD

No samples submitted

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XLI

MILL Q -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
180037	WFlS	9/26/58	1	43.5	43.3	-0.2	12.8	12.2	-0.6	112	105	- 7	311[a]	265	-46	351[a]	340	-11
180038	WFlS	9/29/58	1	43.7	43.5	-0.2	13.0	12.3	-0.7	96	92	- 4	307	270	-37	363[a]	347	-16
180039	WFlS	9/29/58	1	43.7	43.1	-0.6	13.0	12.5	-0.5	102	101	- 1	309[a]	273	-36	360[a]	355	- 5
180088	WFlS	9/30/58	1	43.5	43.2	-0.3	12.8	12.2	-0.6	110	102	- 8	293[a]	262	-31	367[a]	348	-19
Current Mill Average:				43.6	43.3	-0.3	12.9	12.3	-0.6	105	100	- 5	305	268	-37	360	348	-12

TABLE XLII

MILL S -- 42-LB. LINERBOARD

179992	W.	9/24/58	4	42.4	42.2	-0.2	11.0	11.0	0.0	111	116	+ 5	334	346	+12	361[a]	357	- 4
180034	W.	9/29/58	2	42.7	42.5	-0.2	13.1	12.6	-0.5	107	110	+ 3	366[a]	348	-18	375[a]	406	+31
180314	W.	10/ 1/58	2	44.0	43.6	-0.4	13.6	13.3	-0.3	110	111	+ 1	389[a]	373	-16	382[a]	402	+20
180315	W.	10/20/58	2	42.1	41.6	-0.5	13.1	12.5	-0.6	108	106	- 2	341	316	-25	361[a]	359	- 2
Current Mill Average:				42.8	42.5	-0.3	12.7	12.4	-0.3	109	111	+ 2	358	346	-12	370	381	+11

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

COMPARISON OF INSTITUTE AND MILL DATA--OCTOBER 1 THROUGH OCTOBER 31, 1958 (continued)

TABLE XLIII

MILL T -- 42-LB. LINERBOARD

File No.	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			Elmendorf Tear, g./sheet					
													In			Across		
				IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
179981	W.F.	9/17/58	--	46.3	46.1	-0.2	12.1	12.0	-0.1	112	115	+ 3	319	324	+ 5	384[a]	373	-11
179982	W.F.	9/18/58	--	45.5	42.9	-2.6	13.0	12.5	-0.5	112	106	- 6	339	300	-39	391[a]	324	-67
179983	W.F.	9/19/58	--	43.1	43.0	-0.1	12.6	12.1	-0.5	107	111	+ 4	319[a]	309	-10	352[a]	355	+ 3
180041	W.F.	10/ 1/58	--	46.9	46.3	-0.6	12.9	12.2	-0.7	109	112	+ 3	328	311	-17	392[a]	361	-31
180042	W.F.	10/ 2/58	--	43.8	43.7	-0.1	12.8	12.6	-0.2	103	108	+ 5	323[a]	313	-10	374[a]	371	- 3
180053	W.F.	10/ 3/58	--	45.8	44.8	-1.0	12.6	12.0	-0.6	125	120	- 5	331[a]	293	-38	378[a]	349	-29
180154	W.F.	10/ 8/58	--	43.0	42.5	-0.5	12.0	11.5	-0.5	115	107	- 8	313[a]	320	+ 7	363[a]	337	-26
180155	W.F.	10/ 9/58	--	43.0	42.8	-0.2	12.1	11.9	-0.2	107	102	- 5	353[a]	365	+12	371[a]	333	-38
180156	W.F.	10/10/58	--	40.4	40.4	0.0	11.6	11.4	-0.2	107	104	- 3	343[a]	329	-14	339[a]	311	-28
180157	W.F.	10/15/58	--	46.1	45.4	-0.7	12.5	12.1	-0.4	115	114	- 1	329[a]	308	-21	395[a]	369	-26
180158	W.F.	10/16/58	--	44.9	43.7	-1.2	12.7	12.4	-0.3	113	104	- 9	354[a]	323	-31	367[a]	359	- 8
180159	W.F.	10/17/58	--	43.4	42.5	-0.9	12.8	12.5	-0.3	111	106	- 5	349[a]	321	-28	369[a]	341	-28
Current Mill Average:				44.3	43.7	-0.6	12.5	12.1	-0.4	111	109	- 2	333	318	-15	373	349	-24

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.